8.1.9.bb *Dennery Canyon West (J 2 W J 31)*

Site Description and Existing Conditions

Dennery Canyon West (J 2 W J 31) is a 9-acre vernal pool preserve and restoration site located along Hidden Trails Road north of SR 905 in Otay Mesa. The site is outside, but adjacent to, the MHPA and is zoned Multi-family Residential. The Dennery Canyon West vernal pools occur between the Ocean View Hills residential development and conserved portions of Dennery Canyon, including the Cal Terraces vernal pool mitigation site. Dennery Canyon West was conserved in 2003 by CalTrans. The site is being restored as mitigation for the State Route 905 Extension project in partial fulfillment of the conditions of U.S. Fish and Wildlife Service Biological Opinion 1-6-04-F-2296.5.

Forty natural vernal pools and road ruts (497 m² [5,350.25 ft²] combined basin area) were mapped at Dennery Canyon West. Soils on-site include Olivenhain cobbly loam and Stockpen gravelly clay loam, and upland vegetation is disturbed coastal sage scrub and maritime succulent scrub. *Branchinecta* spp. were present in 2003.

Although considered separately here due to ownership and conservation status, the Dennery Canyon West site is geographically related to vernal pools at J 2 West, Otay Mesa Road, and Cal Terraces, and part of the same complex and series.

Threats

Restoration Success

The Final Dennery Canyon West Vernal Pool and Quino Checkerspot Butterfly Habitat Restoration Plan as Mitigation for State Route 905 (EDAW 2008) specifies success criteria for the restored vernal pools, and remediation measures if necessary. The permitting agencies will approve the project upon completion.

Development

Dennery Canyon West was acquired by CalTrans in 2003 for conservation purposes, and will be restored as mitigation for the State Route 905 extension project.

Invasive Species

Invasive species, particularly grasses, occur in both uplands and vernal pool basins at Dennery Canyon West. An invasive species management program is included in the mitigation plan.

Trespass

Trespass is generally limited to foot-traffic, although the area was historically impacted by off-road vehicles.

Litter

The site may be impacted by wind-blown trash and litter from trespassers; occurrences of dumping have been limited by nearby developments.

Fire and Fire Suppression

The Dennery Canyon West vernal pools are located between Dennery Canyon and residential neighborhoods. The site may serve as a staging area in the event of a canyon fire, and the developed nature of much of the surrounding area would necessitate stringent fire-fighting measures.

Required Management Activities

The management requirements discussed in this section are permit conditions associated with U.S. Fish and Wildlife Service Biological Opinion 1-6-04-F-2296.5. Specific details are available in the *Final Dennery Canyon West Vernal Pool and Quino Checkerspot Butterfly Habitat Restoration Plan as Mitigation for State Route 905* (EDAW 2008). The costs associated with these required management activities are the responsibility of CalTrans or designee.

- Restoration of 36 basins totaling 1.07 acres, including a minimum of two that provide appropriate habitat for Riverside fairy shrimp
- Vernal pool maintenance throughout the six-year maintenance period, including basin restoration and weeding
- Vernal pool monitoring throughout the six-year monitoring period, including hydrologic, floral and faunal surveys
- Upland maintenance throughout the six-year maintenance period, including watershed/upland restoration and weeding
- Watershed/upland restoration monitoring throughout the six-year monitoring period, including qualitative, quantitative, and wildlife (San Diego and Riverside fairy shrimp, California gnatcatcher, Quino Checkerspot butterfly) surveys
- Annual reports of maintenance and monitoring efforts through the six-year monitoring period
- Maintenance of existing fencing
- Installation/maintenance of signage

Management Recommendations

Active habitat restoration shall continue, as necessary, until the success criteria are met. These criteria, detailed in the approved mitigation plan (see EDAW, 2008) shall be used by the restoration specialist and permitting agencies to determine the completeness of mitigation. Only upon written notice from the permitting agencies shall the restoration be deemed complete.

Fence repair will be required as necessary in perpetuity. Semi-annual maintenance patrols should occur to determine the need for fence repair and/or signage replacement, as well as litter and invasive species assessment. If the maintenance patrols determine that active management is necessary after completion of the mitigation period, all work should take into the consideration the sensitivity of on-site habitats, including adequate training of crews and supervision by a qualified biologist.

As additional information becomes available, the site should be managed to improve habitat conditions for native, solitary bees known to be obligate pollinators for vernal pool species.

Land managers should encourage research at this site, especially relating to the long-term success of restored and created vernal pools and upland vegetation.



